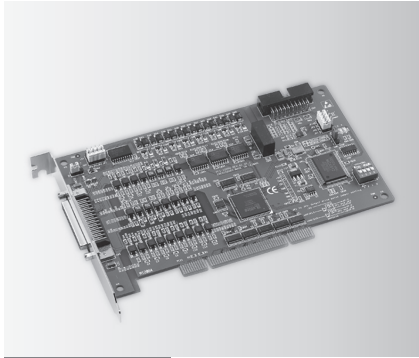# PCI-1220U
2-Axis Stepping and Servo Motor Control Universal PCI Card

PCI-1240U
4-Axis Stepping and Servo Motor Control Universal PCI Card

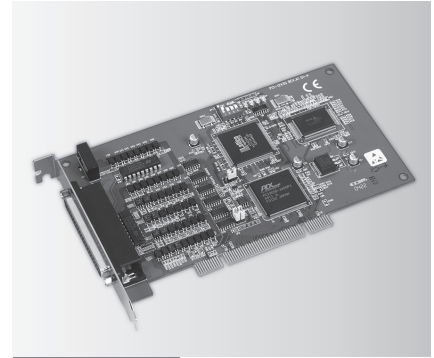# PCI-1243U
4-Axis Stepping Motor Control Universal PCI Card

PCI-1220U RoHS COMPLIANT 2002/95/EC CE FCC
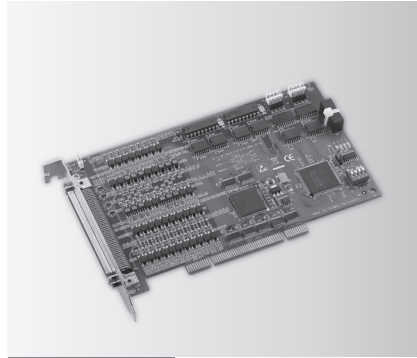
PCI-1240U

PCI-1243U

Specifications

Pulse-Type Motion Control

- **Motor Driver Support** — Pulse-type servo/stepping
- **Number of Axis** — 4
- **Interpolation** — 2-axis linear, 2-axis circular
- **Max. Output Speed** — 4 Mpps
- **Step Count Range** — ±2, 147, 483, 646 (32-bit)
- **Pulse Output Type** — Pulse/direction (1-pulse, 1-direction type), or CW/CCW (2-pulse type)
- **Position Counters** — Range of command and actual position
- **Velocity Profiles** — T-Curve, S-Curve
- **Local I/O** — Machine Interfaces: LMT+, LMT-, ORG
  Servo Driver Interfaces: ALM, RDY, SVON, INP
  Position Compare I/O: CMP
  General Digital I/O: 12-ch DI, 16-ch DO

Encoder Interface

- **Input Type** — Quadrature (A/B phase or up/down)
- **Counts /Enc. Cycle** — x1, x2, x4 (A/B phase only)
- **Input Range** — 5 ~ 25 V
- **Isolation Protection** — 2,500 V_{DC}
- **Max. Input Freq.** — 1 MHz

General

- **Bus Type** — PC/104
- **Certification** — CE, FCC Class A
- **Connectors** — 2 x IDC 50-pin male connector
- **Dimensions (L x H)** — 96 x 90 mm (3.8" x 3.5")
- **Power Consumption** — Typical: 5 V @ 850 mA
  Max.: 5 V @ 1 A
- **Humidity** — 5 ~ 95% RH, non-condensing (IEC 60068-2-3)
- **Operating Temp.** — 0 ~ 60°C (32 ~ 140°F)
- **Storage Temp.** — -20 ~ 85°C (-4 ~ 185°F)

Ordering Information

- **PCI-1220U-AE** — 2-axis Stepping and Servo Motor Control Universal PCI Card

Accessories

- **ADAM-3952-AE** — 50-pin DIN-rail SCSI and Box Header Board
- **PCL-10150-1.2E** — IDC-50 Flat Cable, 1.2m (PCM-3240 only)
- **PCL-10152-1E/3E** — 50-pin SCSI M-M Shielded Cable, 1m/3m
- **PCL-10153PA5-2E** — 50-pin Cable to Panasonic A4/A5 Servo, 2 m
- **PCL-10153YS5-2E** — 50-pin Cable to Yaskawa Sigma V/7 Servo, 2 m
- **PCL-10153MJ3-2E** — 50-pin Cable to Mitsubishi J3/J4 Servo, 2 m
- **PCL-10153DA2-2E** — 50-pin Cable to Delta A2 Servo, 2 m

Specifications

Pulse-Type Motion Control

- **Motor Driver Support** — Pulse-type servo/stepping
- **Number of Axis** — 4
- **Interpolation** — 2-axis linear, 3-axis linear, 2-axis circular
- **Max. Output Speed** — 4 Mpps
- **Step Count Range** — ±2, 147, 483, 646 (32-bit)
- **Pulse Output Type** — Pulse/direction (1-pulse, 1-direction type), or CW/CCW (2-pulse type)
- **Position Counters** — Range of command and actual position
- **Velocity Profiles** — T-Curve, S-Curve
- **Local I/O** — Machine Interfaces: LMT+, LMT-, ORG
  Servo Driver Interfaces: ALM, RDY, SVON, INP
  Position Compare I/O: CMP
  General Digital I/O: 12-ch DI, 16-ch DO

Encoder Interface

- **Input Type** — Quadrature (A/B phase or up/down)
- **Counts /Enc. Cycle** — x1, x2, x4 (A/B phase only)
- **Input Range** — 5 ~ 25 V
- **Isolation Protection** — 2,500 V_{DC}
- **Max. Input Freq.** — 1 MHz

General

- **Bus Type** — PC/104
- **Certification** — CE, FCC Class A
- **Connectors** — 2 x IDC 50-pin male connector
- **Dimensions (L x H)** — 96 x 90 mm (3.8" x 3.5")
- **Power Consumption** — Typical: 5 V @ 850 mA
  Max.: 5 V @ 1 A
- **Humidity** — 5 ~ 95% RH, non-condensing (IEC 60068-2-3)
- **Operating Temp.** — 0 ~ 60°C (32 ~ 140°F)
- **Storage Temp.** — -20 ~ 85°C (-4 ~ 185°F)

Ordering Information

- **PCI-1240U-B2E** — 4-axis Stepping and Servo Motor Control Universal PCI Card

Accessories

- **ADAM-3956-AE** — 100-pin DIN-rail SCSI 4-axis Motion Wiring Board
- **ADAM-3955-AE** — 50-pin DIN-rail SCSI 2-axis Motion Wiring Board
- **ADAM-3952-AE** — 50-pin DIN-rail SCSI and Box Header Board
- **PCL-101100M-1E/2E/3E** — 100-pin SCSI Cable, 1m/2m/3m
- **PCL-10251-1E/2E/3E** — 100-pin SCSI to Two 50-pin SCSI Cable, 1m/2m/3m
- **PCL-10153PA5-2E** — 50-pin Cable to Panasonic A4/A5 Servo, 2 m
- **PCL-10153YS5-2E** — 50-pin Cable to Yaskawa Sigma V/7 Servo, 2 m
- **PCL-10153MJ3-2E** — 50-pin Cable to Mitsubishi J3/J4 Servo, 2 m
- **PCL-10153DA2-2E** — 50-pin Cable to Delta A2 Servo, 2 m

Specifications

Pulse-Type Motion Control

- **Motor Driver Support** — Stepping
- **Number of Axis** — 4
- **Max. Output Speed** — 400 kpps
- **Step Count Range** — 0 ~ 16, 777, 215
- **Pulse Output Type** — Pulse/Direction, CW/CCW
- **Position Counters** — ±16, 777, 215
- **Home Modes** — 4
- **Velocity Profiles** — T-Curve or S-Curve acceleration/deceleration
- **Local I/O Interfaces** — PEL x 4, NEL x 4, RG x 4, SLD x 4, EMG x 1
- **General Input Channels** — 8
- **General Output Channels** — 8

Isolated Digital Input

- **Channels** — 8
- **Input Voltage** — Logic 0: 1 V
  Logic 1: 12 V (24 V max.)
- **Isolation Protection** — 3,750 V_{RMS}
- **Opto-Isolator Response** — 25 µs
- **Input Resistance** — 4.7 kW

Isolated Digital Output

- **Channels** — 8
- **Output Type** — Sink (NPN)
- **Isolation Protection** — 3,750 V_{RMS}
- **Output Voltage** — 5 ~ 30 V_{DC}
- **Sink Current** — 200 mA max./channel; 1.1 A max. total
- **Opto-Isolator Response** — 25 µs

General

- **Bus Type** — PCI V2.2
- **Certification** — CE, FCC Class A
- **Connectors** — 1 x DB-62 female
- **Dimensions** — 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** — Typical: 5 V @ 340 mA
  Max.: 5 V @ 500 mA
- **Storing Humidity** — 5 ~ 95% RH, non-condensing (IEC 60068-2-3)
- **Operating Temperature** — 0 ~ 60°C (32 ~ 140°F)
- **Storing Temperature** — -20 ~ 80°C (-4 ~ 170°F)

Ordering Information

- **PCI-1243U-AE** — 4-axis Stepping Motor Control Card

Accessories

- **PCL-10162-1E** — DB-62 Cable Assembly, 1m
- **PCL-10162-3E** — DB-62 Cable Assembly, 3m
- **ADAM-3962-AE** — DB-62 Wiring Board with DIN-rail Mounting

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All product specifications are subject to change without notice.